

Appl. No. 10/636,064
Response Dated June 3, 2005
Reply to Office action dated March 4, 2005

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (previously presented) A humidifier system for humidifying air within a building, the building having one or more air ducts for distributing air throughout the building, the system comprising:
 - a) a reservoir for containing filtered fluid;
 - b) a heating element positioned adjacent to the reservoir for heating the filtered fluid within the reservoir;
 - c) a filter assembly in fluid communication with the reservoir, ~~the filter assembly being capable of eliminating particles sized 1.0 micrometers and larger; and~~
 - d) an electrically activated valve positioned to selectively permit fluid flow from ~~[[the]]~~ a supply source to the filter assembly; wherein the humidifier system is configured to be mounted to an air duct in the building and the reservoir, heating element, and filter assembly are sized to humidify the air inside the building.
2. (previously presented) The humidifier system of claim 1, where the electrically activated valve is a solenoid valve.
3. (previously presented) The humidifier system of claim 1, further including a fluid level detection mechanism to detect the fluid level in the reservoir, wherein the fluid level detection mechanism is operatively connected to the electrically activated valve.

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4. (previously presented) The humidifier system of claim 3, wherein the fluid level detection mechanism includes at least a first float device that senses the level of the fluid in the reservoir to control the fluid flow from the supply source to the filter assembly.
5. (previously presented) The humidifier system of claim 4, wherein the first float device includes a magnet and a reed switch.
6. (previously presented) The humidifier system of claim 4, wherein the first float device is a high fluid level float that generates a signal to the electrically activated valve to close fluid flow to the filter assembly when the fluid level is at a predetermined first height.
7. (previously presented) The humidifier system of claim 4, wherein the fluid level detection mechanism includes a second float device that operates in cooperation with the first float device to control the fluid flow from the supply source to the filter assembly.
8. (previously presented) The humidifier system of claim 7, wherein the second float device is a low fluid level float that generates a signal to the electrically activated valve to open fluid flow to the filter assembly when the fluid is at a predetermined second height.
9. (previously presented) The humidifier system of claim 1, wherein the electrically activated valve is a normally closed valve.
10. (previously presented) The humidifier system of claim 1, wherein the electrically activated valve and filter assembly are positioned in series such that the filter assembly is at approximately atmospheric pressure when the electrically-activated valve is closed.

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11. (currently amended) The humidifier system of claim ~~[[1]]~~ 48, wherein the filter assembly is capable of eliminating particles sized 0.1 micrometers and larger.

12. (currently amended) The humidifier system of claim ~~[[1]]~~ 48, wherein the filter assembly is capable of eliminating particles sized 0.01 micrometers and larger.

13. (previously presented) The humidifier system of claim 1, wherein the filter assembly comprises a reverse osmosis filter.

14-34. (canceled)

35. (currently amended) A humidifier system, comprising:

- a) a reservoir configured to contain a fluid;
- b) a heat source configured to heat fluid within the reservoir; and
- c) a filter assembly for filtering the fluid prior to its flowing into the reservoir, ~~the filter assembly capable of eliminating particles sized 1.0 micrometers and greater;~~
- d) an electrically-activated valve positioned to selectively permit fluid flow from the supply source to the filter assembly; and
- e) a fluid level detection mechanism to detect the fluid level in the reservoir wherein the fluid level detection mechanism is operatively connected to the electrically activated valve.

36. (original) The humidifier system of claim 35, where the electrically activated valve is a solenoid valve.

37. (original) The humidifier system of claim 35, wherein the heat source is a heating element within the reservoir.

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38. (original) The humidifier system of claim 35, wherein the heat source is applied to the exterior of the reservoir to heat the fluid.
39. (original) The humidifier system of claim 35, wherein the fluid level detection mechanism includes at least a first float device that senses the level of the fluid in the reservoir to control the fluid flow from the supply source to the filter assembly.
40. (original) The humidifier system of claim 39, wherein the first float device includes a magnet and a reed switch.
41. (original) The humidifier system of claim 39, wherein the first float device is a high fluid level float that generates a signal to the electrically-activated valve to close fluid flow to the filter assembly when the fluid level is at a predetermined first height.
42. (original) The humidifier system of claim 39, wherein the fluid level detection mechanism includes a second float device that operates in cooperation with the first float device to control the fluid flow from the supply source to the filter assembly.
43. (original) The humidifier system of claim 42, wherein the second float device is a low fluid level float that generates a signal to the electrically-activated valve to open fluid flow to the filter assembly when the fluid level is at a predetermined second height.
44. (currently amended) The humidifier system of claim ~~[[35]]~~ 49, wherein the filter assembly is capable of eliminating particles sized 0.1 micrometers and larger.
45. (currently amended) The humidifier system of claim ~~[[35]]~~ 49, wherein the filter assembly is capable of eliminating particles sized 0.01 micrometers and larger.

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46. (original) The humidifier system of claim 35, wherein the filter assembly comprises a reverse osmosis filter.
47. (original) The humidifier system of claim 46, wherein the filter assembly comprises a chlorine filter in fluid communication with an inlet of the reverse osmosis filter.
48. (new) The humidifier system of claim 1, wherein the filter assembly is capable of eliminating particles sized 1.0 micrometers and larger.
49. (new) The humidifier system of claim 35, wherein the filter assembly is capable of eliminating particles sized 1.0 micrometers and larger.
50. (new) A humidifier system for humidifying air within a building having one or more air ducts for distributing air throughout at least part of the building, the system comprising:
- a) a reservoir for containing filtered fluid;
 - b) a heating element in thermal communication with the reservoir for heating the filtered fluid within the reservoir;
 - c) a filter assembly in fluid communication with the reservoir; and
 - d) an electrically activated valve positioned to selectively permit fluid flow from a supply source to the filter assembly; wherein at least part of the humidifier system is configured to be mounted to an air duct in the building.
51. (new) The humidifier system of claim 50, further including a fluid level detection mechanism to detect the fluid level in the reservoir, wherein the electrically activated valve selectively permits fluid flow based on the fluid level detection mechanism.

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52. (new) The humidifier system of claim 51, wherein the fluid level detection mechanism includes at least a first float device that senses the level of the fluid in the reservoir to control the fluid flow from the supply source to the filter assembly.
53. (new) The humidifier system of claim 52, wherein the first float device includes a magnet and a reed switch.
54. (new) The humidifier system of claim 52, wherein the first float device is a high fluid level float that generates a signal to the electrically activated valve to close fluid flow to the filter assembly when the fluid level is at a predetermined first height.
55. (new) The humidifier system of claim 52, wherein the fluid level detection mechanism includes a second float device that operates in cooperation with the first float device to control the fluid flow from the supply source to the filter assembly.
56. (new) The humidifier system of claim 55, wherein the second float device is a low fluid level float that generates a signal to the electrically activated valve to open fluid flow to the filter assembly when the fluid is at a predetermined second height.
57. (new) The humidifier system of claim 50, wherein the filter assembly is capable of eliminating particles sized 1.0 micrometers and larger.
58. (new) The humidifier system of claim 50, further comprising a mounting means for mounting at least part of the humidifier system to the air duct.
59. (new) A humidifier system for humidifying air inside a building having one or more air ducts for distributing air throughout at least part of the building, the system comprising:
- a) a reservoir for containing filtered fluid;

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- b) a heating element in thermal communication with the reservoir for heating the filtered fluid within the reservoir;
- c) a filter assembly in fluid communication with the reservoir;
- d) an electrically activated valve positioned to selectively permit fluid flow from a supply source to the filter assembly; and
- e) a mount for mounting the humidifier system to an air duct in the building.

60. (new) The humidifier system of claim 59, further including a fluid level detection mechanism to detect the fluid level in the reservoir, wherein the fluid level detection mechanism is operatively connected to the electrically activated valve.

61. (new) The humidifier system of claim 60, wherein the fluid level detection mechanism includes at least a first float device that senses the level of the fluid in the reservoir to control the fluid flow from the supply source to the filter assembly.

62. (new) The humidifier system of claim 61, wherein the first float device includes a magnet and a reed switch.

63. (new) The humidifier system of claim 61, wherein the first float device is a high fluid level float that generates a signal to the electrically activated valve to close fluid flow to the filter assembly when the fluid level is at a predetermined first height.

64. (new) The humidifier system of claim 61, wherein the fluid level detection mechanism includes a second float device that operates in cooperation with the first float device to control the fluid flow from the supply source to the filter assembly.

65. (new) The humidifier system of claim 64, wherein the second float device is a low fluid level float that generates a signal to the electrically activated valve to open fluid flow to the filter assembly when the fluid is at a predetermined second height.

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66. (new) The humidifier system of claim 59, wherein the filter assembly is capable of eliminating particles sized 1.0 micrometers and larger.